Special Standards
9 VAC 25-260-310

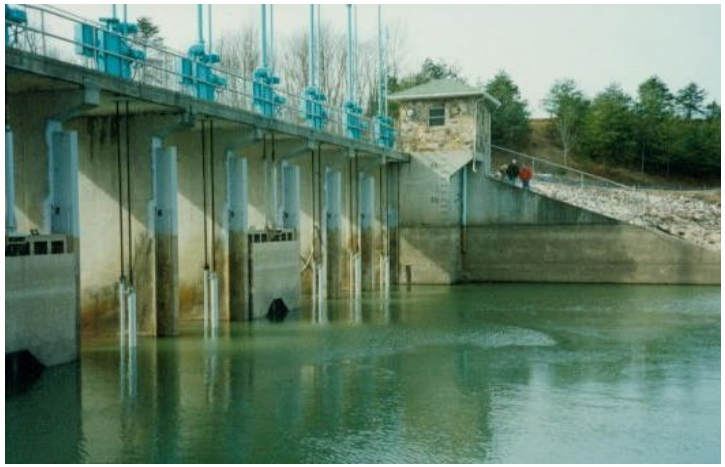
Special Standards
Issues Under Consideration

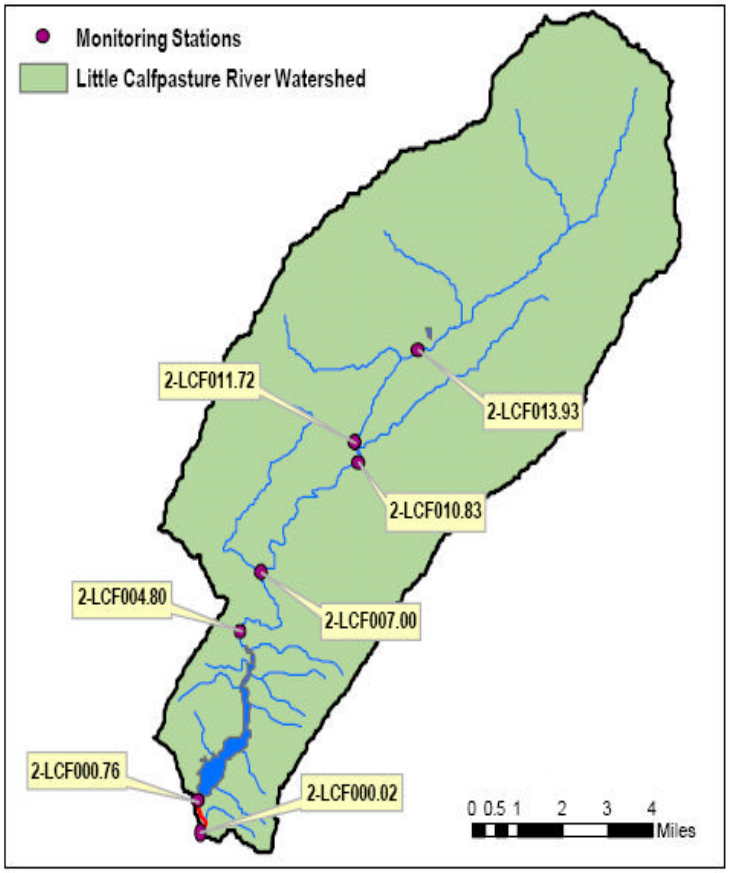
- Little Calfpasture River Goshen Dam Benthic Use Impairment (UAA)
- Lake Curtis high pH impairment due to fishery use / fertilized lake
- Manganese in Roanoke PWS
- Lake Drummond DO and pH impairment due to swamp conditions for soon to approved special standard “dd”
- Chickahominy effluent limits special standard “m” clarification
- Chlorides special standard “s” deletion
- Limestone streams pH (River Basin Section Tables)
- Potomac tributary delineation for ammonia special standard “y”

- Indicates existing special standards needing clarification or revision

Special Standards

Little Calfpasture River Goshen Dam Benthic Use Impairment (UAA)

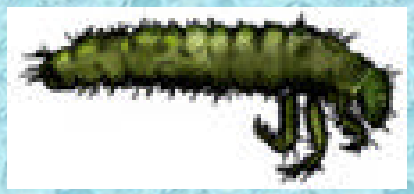




Special Standards

Little Calfpasture River Goshen Dam Benthic Use Impairment (UAA)

- Lake Merriweather for recreational uses but also provides flood control
- Benthic impairments for 0.83 miles below dam
- Food supply, sediment, DO stressors
- Natural consequence of impoundment that cannot be remedied by any design or operational changes will be focus of special standard
- Subcategory of aquatic life use (benthic)
- Enforceable controls via Special Order for dam operation
- TMDL for sediment upstream



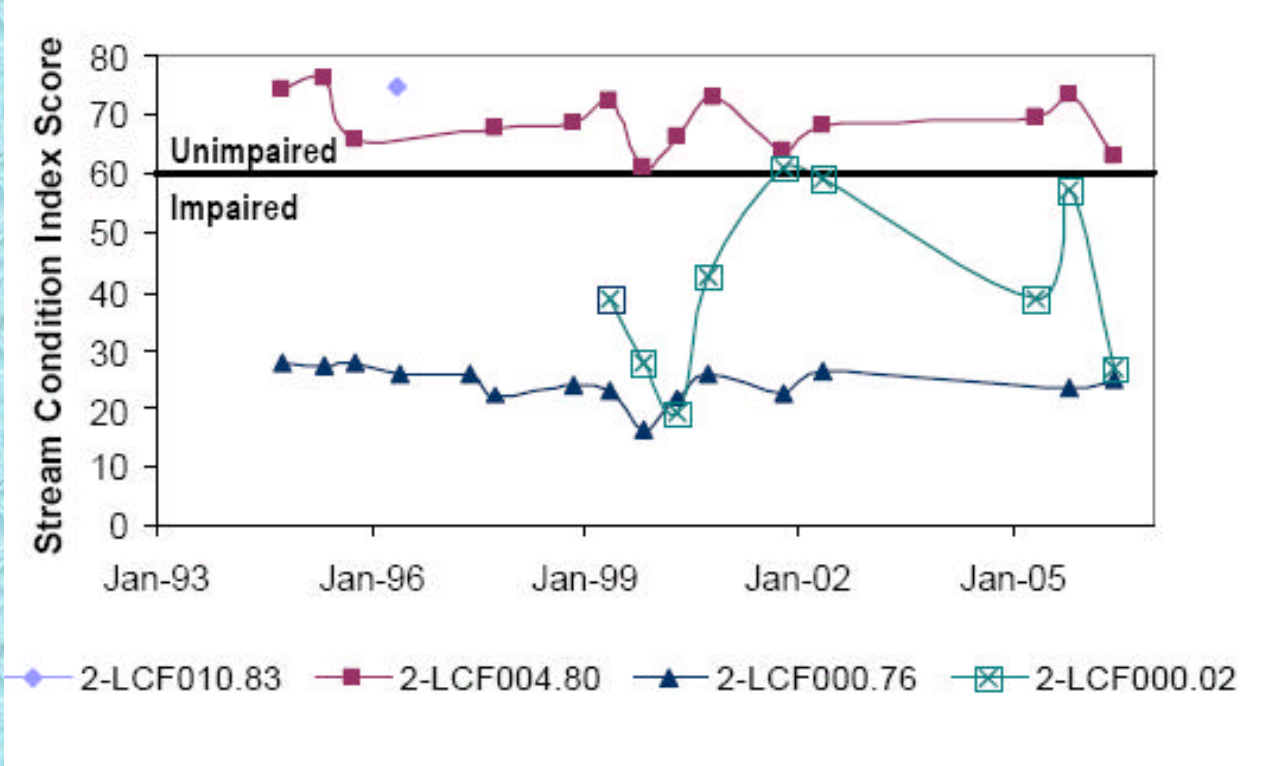
Special Standards

Little Calfpasture River Goshen Dam Benthic Use Impairment (UAA)

- December 1992 fish kill downstream of Lake Merriweather due to sediment from draining lake for gate repair
- 1993 NOV and Special Order required an alternate method for draining the lake
- 1996 another NOV due to sediment releases from dam for flood control
- 1998 Special Order amended to maintain lake at full pool and not drawn down except in emergency flooding and required spillway gate operation protocol
- 1998 – 2004 dam operated according to special order (lake lowered before hurricanes Dennis 09/99, Isabel (09/03), Francis, Ivan and Jeanne (09/04-10/04)
- 2005 – present still enforcement issues with dam operation and compliance with special order

Special Standards

Little Calfpasture River Goshen Dam Benthic Use Impairment (UAA)



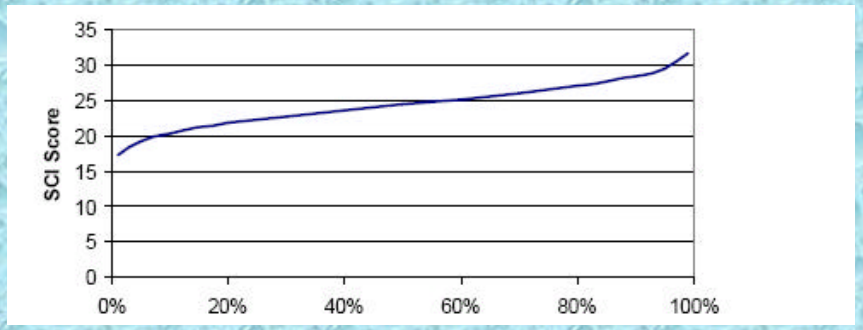
Special Standards

Little Calfpasture River Goshen Dam Benthic Use Impairment (UAA)

- During development of SCI method, Tetra Tech recommended the 10th percentile as the cutoff to determine impairment

Table 4-1. Statistics for Benthic SCI Scores at Station 2-LCF000.76.

Statistic	Value
Sample Date Range	10/1994 - 6/2006
N	15
Average	24.47
Median	25.21
Min	15.95
Max	27.87
Std. Dev.	3.09
CV	12.6%

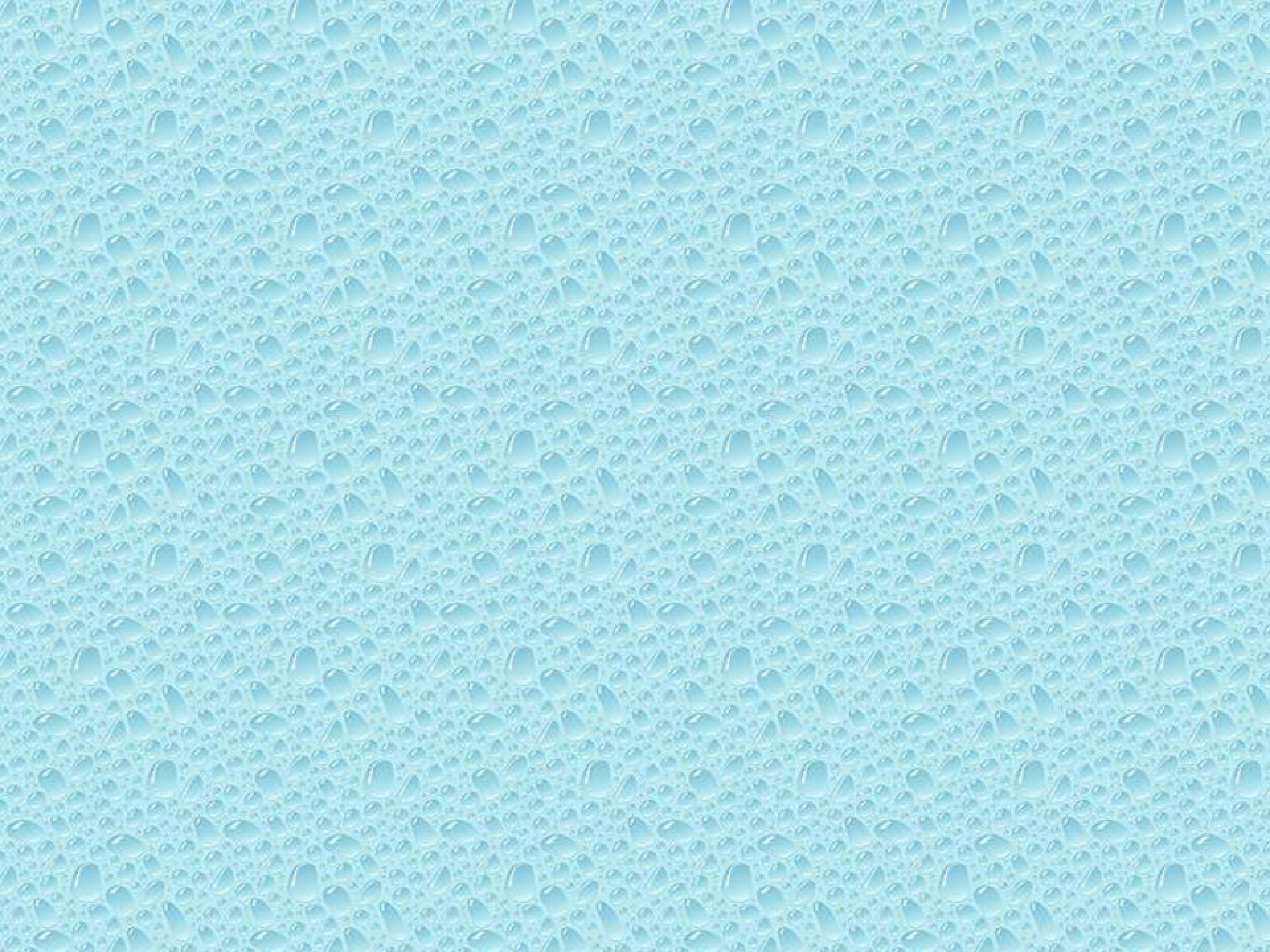


Special Standard

Little Calfpasture River Goshen Dam

Proposed

- **Little Calfpasture River from Goshen Dam to 0.02 miles above its confluence with the Calfpasture River has a stream condition index of at least 20.5 to protect the subcategory of aquatic life that exists here as a result of the hydrologic modification. From 0.02 miles above the confluence with the Calfpasture River to the confluence with the Calfpasture River, the general aquatic life designated use shall apply.**



Special Standards

Lake Curtis High pH

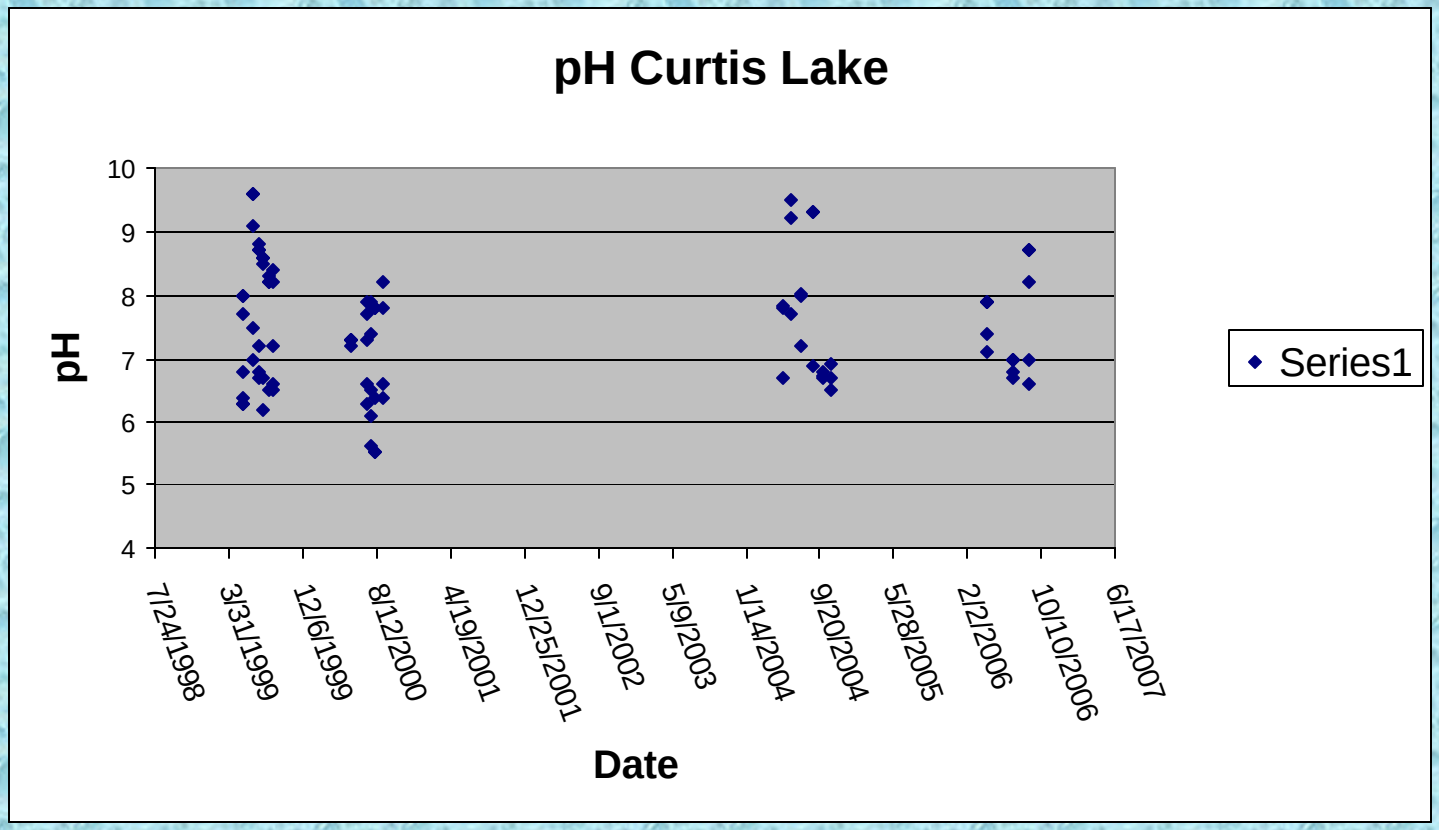
Special Standards

Lake Curtis High pH

- Fertilized lake managed for fishery use cause of high pH
- Best management practices employed
- Ranges 5.5 to 9.6
- Meets nutrient criteria
- No downstream impacts
- Test case for consent decree lake

Special Standards

Lake Curtis High pH

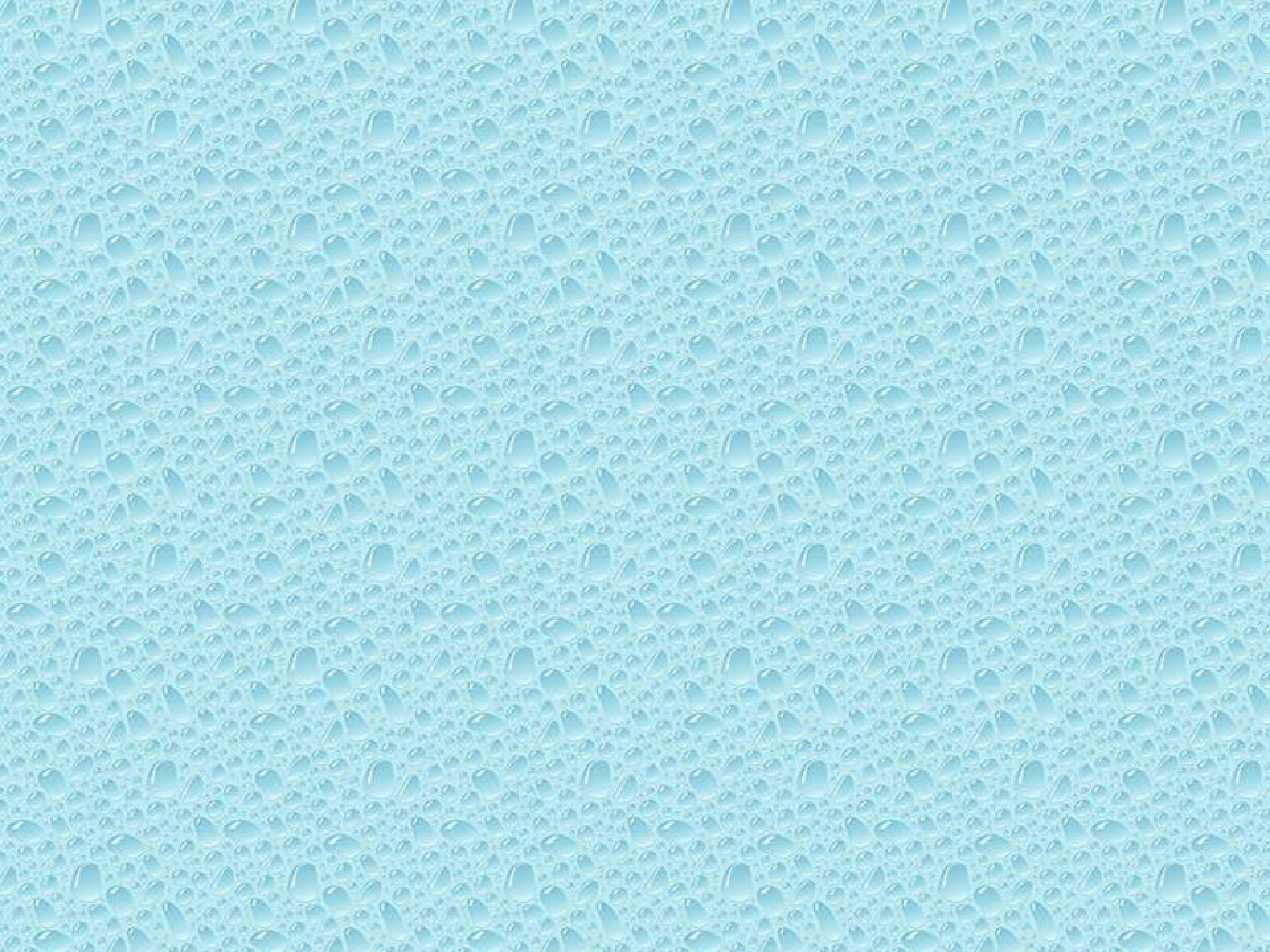


Special Standard

Lake Curtis High pH

Proposed

- **Lake Curtis in Stafford County has a pH standard of 5.5-9.6 which is protective of the aquatic life in this reservoir and is a result of the fertilization techniques needed to manage the fishery.**



Special Standards

Roanoke River Manganese

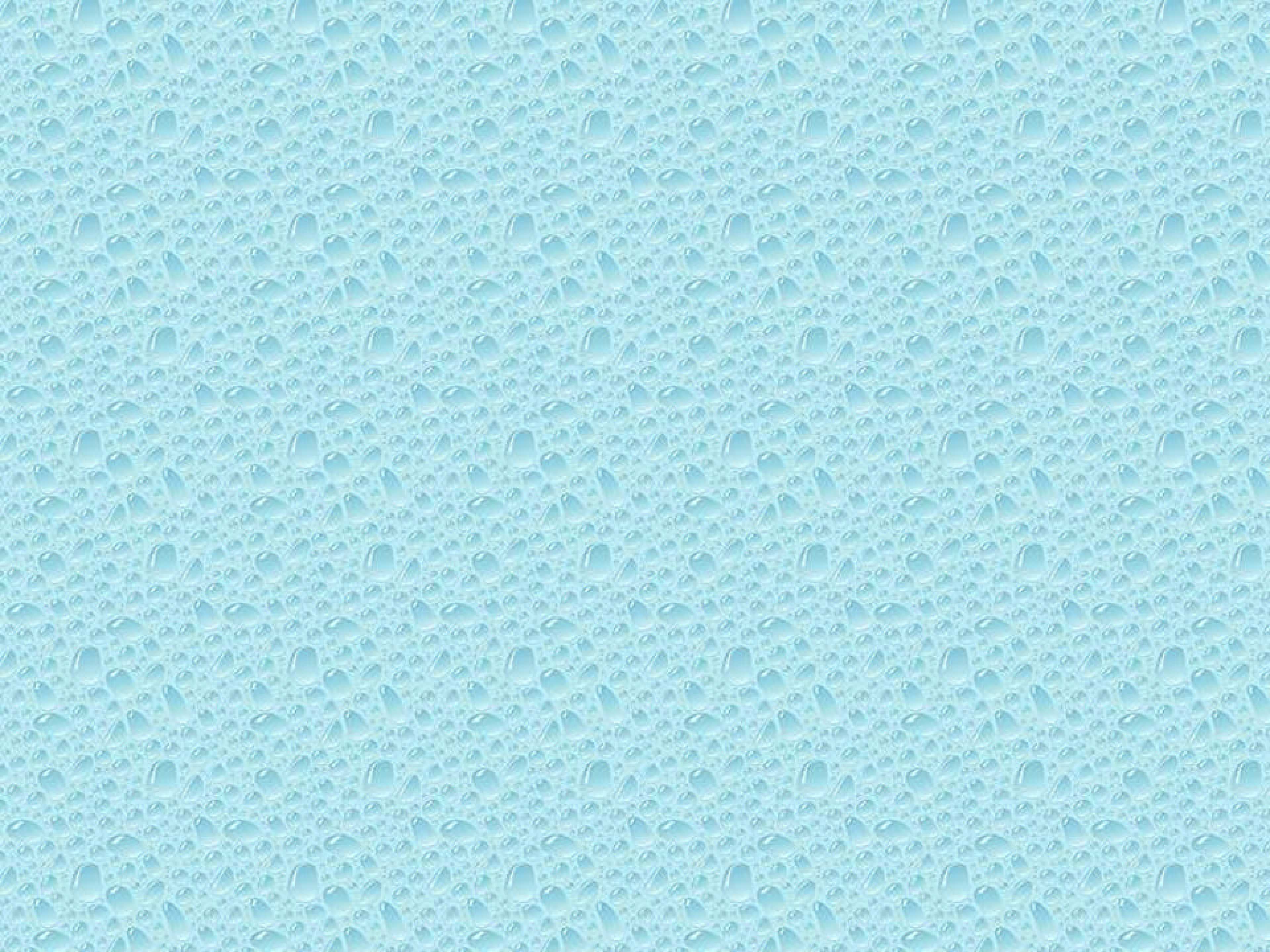
- Roanoke River assigned PWS designation from Kerr to Leesville dam
- Manganese secondary MCL (50 ug/l) applies at intake
- Naturally higher than 50 ug/l
- Higher background concentration allows no addition to water supply
- Applied as ‘total’ manganese
- Impacted permittee 20+ miles upstream of intake
- VDH involvement / concern at this site is dissolved manganese in the source water

Special Standard

Roanoke River Manganese

Proposed

- **John H. Kerr Reservoir at the Clarksville water supply intake has a dissolved manganese criterion of 50 µg/l to protect the acceptable taste, odor or aesthetic quality of the drinking water.**



Existing Special Standards Proposed

- Lake Drummond include DO and pH to soon to be approved special standard “dd”
  - Status: waiting on report
- Chickahominy effluent limits special standard “m” clarification
  - Status: clarify dischargers (instead of effluents) consisting solely of stormwater are excluded and clarify ammonia and settleable solids are monthly averages (reflects existing practice and intent) and clarify sig. digits
- Chlorides special standard “s”
  - Status: deleted as it was intended for a non existing discharger in response to tobacco farming needs
- Limestone streams pH (River Basin Section Tables for Potomac, Shenandoah, James)
  - Status: Looking for geology map layer
- Potomac tributary delineation for ammonia special standard “y
  - Status: clarified for tidal streams only